

REMARKS

Claims 1-10 were pending in the application; the status of the claims is as follows:

Claims 1-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,128,416 to Oura ("Oura").

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Oura and further in view of U.S. Patent 6,359,617 B1 to Xiong ("Xiong").

Claim 10 is rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

The acknowledgement, in the Office Action, of a claim for foreign priority under 35 U.S.C. § 119(a)-(d), and that the certified copy of the priority document has been received, is noted with appreciation.

The indication, in the Office Action, that the Examiner has no objections to the drawings filed on January 10, 2002, is noted with appreciation.

Claims 8, 9 and 10 have been amended to correct a typographical error therein. Claim 10 has also been amended to more clearly point out and distinctly claim the subject matter of the invention. Claims 11-13 have been added to address additional aspects of the invention. These changes do not introduce any new matter.

35 U.S.C. § 102(b) Rejection

The rejection of claims 1-9 under 35 U.S.C. § 102(b) as being anticipated by Oura, is respectfully traversed based on the following.

Oura discloses a technique for forming a composite image from overlapping images. The technique generally involves automatically identifying the overlap, finding at

least two reference points in one image, finding the corresponding reference points in the other image, calculating the displacement amounts R and S from the reference points, and interpolating and composing the images based on the calculated displacements. *See* Abstract, and column 7, lines 10-20. Indeed, reference block 5 and 6 cited in the Office Action as corresponding to elements of claim 1 are in fact reference blocks for calculating the displacement between two overlapping images. *See* items 21 and 22 of Fig. 3. It is respectfully submitted, however, that Oura focuses mainly on how to find the reference points and provides scant disclosure with respect to how the images are composed, *i.e.*, on how the pixels of the composite image are determined.

In contrast, the claims of the present application are directed to methods and apparatus for composing a pair of image. The method includes finding the overlap between the two images; dividing the overlap into different regions; and determining pixels in the composite image differently depending on region in which the pixel is located. Specifically, a pixel in the composite image is copied from one of the images if the pixel is in the first region, whereas a pixel in the composite image is calculated from corresponding pixels in both images if the pixel is in a second region. This is most apparent from method claim 9 which recites *inter alia*:

- determining an overlap region where two adjacent ones of the images captured overlap with each other;
- determining a first region within the determined overlap region;
- determining a pixel value in the first region *based on a pixel value of one of the two adjacent images*;
- determining a pixel value in a second region within the overlap region *based on respective pixel values of the two adjacent images*, the second region being a region of the overlap region other than the first region; and
- joining the two adjacent images with each other by utilizing the determined pixel value in the first region and the determined pixel value in the second region as pixel values in respective regions of the overlap region.

It is respectfully submitted that Oura does not disclose, teach, or otherwise suggest the claimed method of determining pixels values in a composite image. Therefore, claim 9 distinguishes Oura and is allowable thereover.

Claim 1 is an apparatus claim corresponding to the method of claim 9. The apparatus includes a section for determining a first region of the overlap between two images, a section for determining a pixel value in the first region based on pixels values in one of the images, and a section for determining a pixel value in the rest of the overlap based on pixel values in both images. As provided above in respect of claim 9, it is respectfully submitted that this is not disclose, taught, or suggested by Oura. Therefore claim 1 distinguishes Oura and is allowable thereover.

Claims 2-8 depends from claim 1, thereby incorporating the limitations of claim 1. Accordingly, claims 2-8 distinguish Oura for at least the same reasons as provided above regarding claim 1.

Accordingly, it is respectfully requested that the rejection of claims 1-9 under 35 U.S.C. § 102(b) as being anticipated by Oura, be reconsidered and withdrawn.

35 U.S.C. § 103(a) Rejection

The rejection of claim 10 under 35 U.S.C. § 103(a), as being unpatentable over Oura and further in view of Xiong, is respectfully traversed based on the following.

As provided above in regards to claim 9, Oura fails to disclose the claimed method of determining pixels in a composite image formed from two overlapping images. Specifically, Oura fails to disclose that some pixels in the overlap area are determined from the pixels of only one image, whereas other pixels in the overlap are determined based on pixels of both images. Xiong only appears to disclose manual blending of the images or the use of weighted averaging. *See* column 14, lines 1-45. Accordingly, the combination of Oura and Xiong fails to teach the elements of claim 10:

determining a first region within the overlap region determined;
determining a pixel value in the first region *based on a pixel value of one of the two adjacent images*;
determining a pixel value in a second region within the overlap region *based on respective pixel values of the two adjacent images*, the second region being a region of the overlap region other than the first region; and
joining the two adjacent images with each other by utilizing the determined pixel value in the first region and the determined pixel value in the second region as pixel values in respective regions of the overlap region.

Accordingly, it is respectfully requested that the rejection of claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Oura and further in view of Xiong, be reconsidered and withdrawn.

35 U.S.C. § 101 Rejection

It is respectfully submitted that the rejection of claim 10 under 35 U.S.C. § 101, as being directed to non-statutory subject matter, is mooted by the amendments to claim 10. Accordingly, it is respectfully requested that this ground of rejection be reconsidered and withdrawn.

CONCLUSION

Wherefore, in view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited.

This Amendment increases the number of independent claims by 1 from 3 to 4 and increases the total number of claims by 3 from 10 to 13 (20 claims previously paid for), but does not present any multiple dependency claims. Accordingly, a Response Transmittal and Fee Authorization form authorizing the amount of \$200.00 to be charged to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260 is enclosed herewith in duplicate. However, if the Response Transmittal and Fee Authorization form is

Application No. 10/044,503
Amendment dated March 2, 2005
Reply to Office Action of December 2, 2004


missing, insufficient, or otherwise inadequate, or if a fee, other than the issue fee, is required during the pendency of this application, please charge such fee to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed.

Any other fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee, and not submitted herewith should be charged to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260. Any refund should be credited to the same account.

Respectfully submitted,

By: _____


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March 2, 2005